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NOTICE OF ALLOWANCE AND FEE(S) DUE

46670 7590 01/15/2009

TOWNSEND AND TOWNSEND AND CREW LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

ALI, FARHAD

ART UNIT

PAPER NUMBER

2446

DATE MAILED: 01/15/2009

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/742,329

12/19/2003

Bruce L. Brown JR.

022395-005800US

5765

TITLE OF INVENTION: SYSTEM AND METHOD FOR DETECTING AND DEFEATING IP ADDRESS SPOOFING IN ELECTRONIC MAIL MESSAGES

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$0 | \$0 | \$1510 | 04/15/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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46670 7590 01/15/2009

**TOWNSEND AND TOWNSEND AND CREW LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834**

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

| |
|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/742,329 12/19/2003 Bruce L. Brown JR. 022395-005800US 5765

TITLE OF INVENTION: SYSTEM AND METHOD FOR DETECTING AND DEFEATING IP ADDRESS SPOOFING IN ELECTRONIC MAIL MESSAGES

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|-------------|--------------|---------------|---------------------|----------------------|------------------|----------|
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nonprovisional NO \$1510 \$0 \$0 \$1510 04/15/2009

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
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ALI, FARHAD 2446 709-227000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

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Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| 10/742,329 | 12/19/2003 | Bruce L. Brown JR. | 022395-005800US | 5765 |
| 46670 | 7590 | 01/15/2009 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | ALI, FARHAD | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2446 | |
| DATE MAILED: 01/15/2009 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 827 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 827 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

| | | | |
|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/742,329 | BROWN ET AL. | |
| | Examiner | Art Unit | |
| | FARHAD ALI | 2446 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Telephone interview with Alan Minsk 12/30/2008.
2. ☒ The allowed claim(s) is/are 1,2,5-10 and 12-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date ____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other ____. |
|--|---|

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview and email with Alan Minsk (Reg # 35956) on 12/30/2008.

The application has been amended as follows:

In the claims:

1. (Currently Amended) A method for detecting a spoofed network connection comprising:
 - receiving a connection from a client;
 - delaying sending a greeting message for a delay period, the delay period being less than or equal to a maximum tolerable delay, the maximum tolerable delay being the longest delay that would be tolerated by a valid client;
 - monitoring the connection during the delay period;
 - if a command is received from the client before the greeting is sent, then identifying the connection as the spoofed connection;
 - processing any electronic mail associated with the spoofed connection;
 - wherein a spoofed connection electronic-mail message is processed using a process selected from the group consisting of:
 - deleting the spoofed-connection electronic-mail message;
 - marking the spoofed-connection electronic-mail message; and
 - storing the spoofed-connection electronic-mail message in an electronic directory.
2. (Original) The method of claim 1 further comprising:
 - sending the greeting to the client upon completion of the delay period.
3. (Cancelled).
4. (Cancelled).
5. (Original) The method of claim 1 wherein the connection is a Transmission Control Protocol (TCP) connection.
6. (Original) The method of claim 1 wherein the client is a Mail Transfer Agent (MTA) or Mail User Agent (MUA).

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7. (Original) The method of claim 1 wherein the received command is a Simple Mail Transfer Protocol (SMTP) command.

8. (Currently Amended) A method for detecting a spoofed network connection comprising:

receiving a first command at a server from a client;

delaying, for a delay period, a transmission of a reply associated with the first command, the delay period being less than or equal to a maximum tolerable delay, the maximum tolerable delay being the longest delay that would be tolerated by a valid client;

monitoring a connection between the server and the client during the delay period;

if a second command is received at the server before the reply is transmitted, then identifying the connection as the spoofed connection;

processing any electronic mail associated with the spoofed connection;

wherein a spoofed connection electronic-mail message is processed using a process selected from the group consisting of:

deleting the spoofed-connection electronic-mail message;

marking the spoofed-connection electronic-mail message; and

storing the spoofed-connection electronic-mail message in an electronic directory.

9. (Original) The method of claim 8 further comprising:

sending a greeting to the client when the connection is established with the server.

10. (Original) The method of claim 8 further comprising:

transmitting the reply upon completion of the delay period.

11. (Cancelled)

12. (Original) The method of claim 8 wherein the connection is a Transmission Control Protocol (TCP) connection.

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13. (Original) The method of claim 8 wherein the client is a Mail Transfer Agent (MTA) or Mail User Agent (MUA).

14. (Original) The method of claim 8 wherein the received command is a Simple Mail Transfer Protocol (SMTP) command.

15. (Currently Amended) An apparatus for detecting a spoofed connection comprising:

means for detecting when a connection is established between the apparatus and a client device;

means for transmitting a greeting message or a reply or both to the client device;

means for delaying the transmitting means so that the greeting message or the reply or both are not transmitted during a delay period, the delay period being less than or equal to a maximum tolerable delay, the maximum tolerable delay being the longest delay that would be tolerated by a valid client; and

means for monitoring the connection to detect commands that are sent by the client device at least during the delay period;

if a command is received from the client before the greeting message or a reply or both is sent, then identifying the connection as the spoofed connection;

means for processing any electronic mail associated with the spoofed connection;

wherein a spoofed connection electronic-mail message is processed using a process selected from the group consisting of:

deleting the spoofed-connection electronic-mail message;

marking the spoofed-connection electronic-mail message; and

storing the spoofed-connection electronic-mail message in an electronic directory.

16. (Original) The apparatus of claim 15 wherein the client device is a Mail Transfer Agent (MTA) or Mail User Agent (MUA).

17. (Original) The apparatus of claim 15 wherein the detecting means, the transmitting means, the delaying means, and the monitoring means comprise one or more processor-based devices

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running software algorithms to provide the detecting, transmitting, delaying and monitoring functions.

18. (Original) The apparatus of claim 15 wherein the connection is a Transmission Control Protocol (TCP) connection.

19. (Original) The apparatus of claim 15 wherein the commands are Simple Mail Transfer Protocol (SMTP) commands.

REASONS FOR ALLOWANCE

The following is the examiner's statement of reasons for allowance:

Independent claims 1, 8, and 15 among other things teach

The main reason for allowance in conjunction with all the other claim limitations is a method for detecting a spoofed network connection comprising receiving a connection from a client and delaying sending a greeting message for a delay period, the delay period being less than or equal to a maximum tolerable delay, the maximum tolerable delay being the longest delay that would be tolerated by a valid client. The connection is monitored during the delay period and if a command is received from the client before the greeting is sent, then identifying the connection as the spoofed connection. Furthermore any electronic mail associated with the spoofed connection is processed utilizing a process of deleting the spoofed-connection electronic-mail message, marking the spoofed-connection electronic-mail message, or storing the spoofed-connection electronic-mail message in an electronic directory.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CORRESPONDANCE INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARHAD ALI whose telephone number is (571)270-1920. The examiner can normally be reached on Monday thru Friday, 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Farhad Ali/
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446